CHAPTER 2

SELECT MATERIALS, SUBGRADE, AND SUBBASE COURSES

2-1. Materials. The discussions of select materials, subgrade, and subbase courses in EM 1110-3-141 apply. Drainage requirements and facilities are described in EM 1110-3-136. When conditions require design for frost, select materials and subbases should be treated in accordance with frost design provisions of EM 1110-3-138, as applicable.

2-2. Grade line. The procedure for locating the grade line of the top of the subgrade is given in EM 1110-3-141.

2-3. Compaction of select materials, subgrade, and subbases. The procedures for compacting select materials, subgrade, and subbases in normal cases are presented in EM 1110-3-141.

2-4. Subgrade compaction, special cases. The procedures for compacting subgrades of (a) clays that lose strength when remolded, (b) silts that become "quick" when remolded, and (c) soils with expansive characteristics are described in EM 1110-3-141.

2-5. Selection of design CBR for select materials, subgrade, and subbases. Design CBR values for select materials, subgrade, and subbases are to be selected in accordance with EM 1110-3-141, except as modified in table 2-1. Where freezing temperatures will penetrate into frost-susceptible materials, design procedures outlined in EM 1110-3-138, as applicable, will be followed.

Table 2-1. California Bearing Ratio

		Maximum Permissible Value				
		Gradation Requirements				
			Percent Passing			
Material	Maximum Design CBR	Size, Inches	No. 10 Sieve	No. 200 Sieve	Liquid Limit(a)	Plasticity Index(a)
Subbase	50	2	50	15	25	5
Subbase	40	2	80	15	25	5
Subbase	30	2	100	15	25	5
Select material	20	3	---	--	35	12

Note: (a) Determinations of these values will be made in accordance with Method 103 of MIL-STD-621.

2-6. Stabilization or modification. Stabilization or modification of select materials, subgrade, and subbases is accomplished according to procedures in EM 1110-3-137.